#8 OIPE

CRF Errors Corrected by the STIC System Branch

CRF Processing Date: 9/26/02 0950

Serial Number: 09/974,573 Edited by: DC Verified by: _____ (STIC staff) 09/2

- ☐ Changed a file from non-ASCII to ASCII
- ☐ Changed the margins in cases where the sequence text was "wrapped" down to the next line.
- ☐ Edited a format error in the Current Application Data section, specifically: ENTERED
- ☐ Edited the Current Application Data section with the actual current number. The number inputted by the applicant was ☐ the prior application data; or ☐ other _____.
- ☐ Added the mandatory heading and subheadings for "Current Application Data".
- ☐ Edited the "Number of Sequences" field. The applicant spelled out a number instead of using an integer.
- ☐ Changed the spelling of a mandatory field (the headings or subheadings), specifically:
- ☐ Corrected the SEQ ID NO when obviously incorrect. The sequence numbers that were edited were:
- ☐ Inserted or corrected a nucleic number at the end of a nucleic line. SEQ ID NO's edited:
- ☐ Corrected subheading placement. All responses must be on the same line as each subheading. If the applicant placed a response below the subheading, this was moved to its appropriate place.
- ☐ Inserted colons after headings/subheadings. Headings edited included:
- ☐ Deleted extra, invalid, headings used by an applicant, specifically:
- ☐ Deleted: ☐ non-ASCII "garbage" at the beginning/end of files; ☐ secretary initials/filename at end of file; ☐ page numbers throughout text; ☐ other invalid text, such as _____.
- ☐ Inserted mandatory headings, specifically: _____
- ☐ Corrected an obvious error in the response, specifically:
- ☐ Edited identifiers where upper case is used but lower case is required, or vice versa.
- ☐ Corrected an error in the Number of Sequences field, specifically:
- ☐ A "Hard Page Break" code was inserted by the applicant. All occurrences had to be deleted.
- ☐ Deleted ***ending*** stop codon in amino acid sequences and adjusted the "(A)Length:" field accordingly (error due to a PatentIn bug). Sequences corrected: _____
- ☑ Other: Inserted a "hard return" between <1517 and <1607.

Examiner:** The above corrections must be communicated to the applicant in the first Office Action. **DO NOT send a copy of this form.

3/1/95

OIPE

RAW SEQUENCE LISTING DATE: 09/26/2002
PATENT APPLICATION: US/09/974,573 TIME: 14:21:22

Input Set : A:\PTO.DC.txt
Output Set: N:\CRF4\09262002\I974573.raw

```
  3 <110> APPLICANT: Williams, Roger
  4       Ried, Christian
  5       Walker, Edward H
  6       Stephens, Len
  8 <120> TITLE OF INVENTION: PHOSPHOINOSITIDE 3-KINASES
 10 <130> FILE REFERENCE: ONYX1048-US
 12 <140> CURRENT APPLICATION NUMBER: US 09/974,573
C--> 14 <141> CURRENT FILING DATE: 2000-10-23
 16 <150> PRIOR APPLICATION NUMBER: US 60/242,801
 18 <151> PRIOR FILING DATE: 2000-10-23
 20 <160> NUMBER OF SEQ ID NOS: 1
 22 <170> SOFTWARE: PatentIn version 3.1
 24 <210> SEQ ID NO: 1
 26 <211> LENGTH: 1102
 28 <212> TYPE: PRT
 30 <213> ORGANISM: Porcine PI3K
 32 <400> SEQUENCE: 1
 34 Met Glu Leu Glu Asn Tyr Glu Gln Pro Val Val Leu Arg Glu Asp Asn
 35 1               5                  10                  15
 38 Arg Arg Arg Arg Arg Arg Met Lys Pro Arg Ser Thr Ala Ala Ser Leu
 39             20                  25                  30
 42 Ser Ser Met Glu Leu Ile Pro Ile Glu Phe Val Leu Pro Thr Ser Gln
 43         35                  40                  45
 46 Arg Asn Thr Lys Thr Pro Glu Thr Ala Leu Leu His Val Ala Gly His
 47     50                  55                  60
 50 Gly Asn Val Glu Gln Met Lys Ala Gln Val Trp Leu Arg Ala Leu Glu
 51 65                  70                  75                  80
 54 Thr Ser Val Ser Ala Asp Phe Tyr His Arg Leu Gly Pro Asp His Phe
 55                 85                  90                  95
 58 Leu Leu Leu Tyr Gln Lys Lys Gly Gln Trp Tyr Glu Ile Tyr Asp Lys
 59             100                 105                 110
 62 Tyr Gln Val Val Gln Thr Leu Asp Cys Leu Arg Tyr Trp Lys Val Leu
 63         115                 120                 125
 66 His Arg Ser Pro Gly Gln Ile His Val Val Gln Arg His Ala Pro Ser
 67     130                 135                 140
 70 Glu Glu Thr Leu Ala Phe Gln Arg Gln Leu Asn Ala Leu Ile Gly Tyr
 71 145                 150                 155                 160
 74 Asp Val Thr Asp Val Ser Asn Val His Asp Asp Glu Leu Glu Phe Thr
 75                 165                 170                 175
 78 Arg Arg Arg Leu Val Thr Pro Arg Met Ala Glu Val Ala Gly Arg Asp
 79             180                 185                 190
 82 Pro Lys Leu Tyr Ala Met His Pro Trp Val Thr Ser Lys Pro Leu Pro
 83         195                 200                 205
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86 Glu Tyr Leu Leu Lys Lys Ile Thr Asn Asn Cys Val Phe Ile Val Ile
87     210                 215                 220
90 His Arg Ser Thr Thr Ser Gln Thr Ile Lys Val Ser Ala Asp Asp Thr
91 225                 230                 235                 240
94 Pro Gly Thr Ile Leu Gln Ser Phe Phe Thr Lys Met Ala Lys Lys Lys
95                 245                 250                 255
98 Ser Leu Met Asp Ile Pro Glu Ser Gln Asn Glu Arg Asp Phe Val Leu
99             260                 265                 270
102 Arg Val Cys Gly Arg Asp Glu Tyr Leu Val Gly Glu Thr Pro Ile Lys
103         275                 280                 285
106 Asn Phe Gln Trp Val Arg Gln Cys Leu Lys Asn Gly Glu Glu Ile His
107     290                 295                 300
110 Leu Val Leu Asp Thr Pro Pro Asp Pro Ala Leu Asp Glu Val Arg Lys
111 305                 310                 315                 320
114 Glu Glu Trp Pro Leu Val Asp Asp Cys Thr Gly Val Thr Gly Tyr His
115                 325                 330                 335
118 Glu Gln Leu Thr Ile His Gly Lys Asp His Glu Ser Val Phe Thr Val
119             340                 345                 350
122 Ser Leu Trp Asp Cys Asp Arg Lys Phe Arg Val Lys Ile Arg Gly Ile
123         355                 360                 365
126 Asp Ile Pro Val Leu Pro Arg Thr Ala Asp Leu Thr Val Phe Val Glu
127     370                 375                 380
130 Ala Asn Ile Gln Tyr Gly Gln Gln Val Leu Cys Gln Arg Arg Thr Ser
131 385                 390                 395                 400
134 Pro Lys Pro Phe Thr Glu Glu Val Leu Trp Asn Val Trp Leu Glu Phe
135                 405                 410                 415
138 Ser Ile Lys Ile Lys Asp Leu Pro Lys Gly Ala Leu Leu Asn Leu Gln
139             420                 425                 430
142 Ile Tyr Cys Gly Lys Ala Pro Ala Leu Ser Gly Lys Thr Ser Ala Glu
143         435                 440                 445
146 Met Pro Ser Pro Glu Ser Lys Gly Lys Ala Gln Leu Leu Tyr Tyr Val
147     450                 455                 460
150 Asn Leu Leu Leu Ile Asp His Arg Phe Leu Leu Arg His Gly Glu Tyr
151 465                 470                 475                 480
154 Val Leu His Met Trp Gln Leu Ser Gly Lys Gly Glu Asp Gln Gly Ser
155                 485                 490                 495
158 Phe Asn Ala Asp Lys Leu Thr Ser Ala Thr Asn Pro Asp Lys Glu Asn
159             500                 505                 510
162 Ser Met Ser Ile Ser Ile Leu Leu Asp Asn Tyr Cys His Pro Ile Ala
163         515                 520                 525
166 Leu Pro Lys His Arg Pro Thr Pro Asp Pro Glu Gly Asp Arg Val Arg
167     530                 535                 540
170 Ala Glu Met Pro Asn Gln Leu Arg Lys Gln Leu Glu Ala Ile Ile Ala
171 545                 550                 555                 560
174 Thr Asp Pro Leu Asn Pro Leu Thr Ala Glu Asp Lys Glu Leu Leu Trp
175                 565                 570                 575
178 His Phe Arg Tyr Glu Ser Leu Lys Asp Pro Lys Ala Tyr Pro Lys Leu
179             580                 585                 590
182 Phe Ser Ser Val Lys Trp Gly Gln Gln Glu Ile Val Ala Lys Thr Tyr
```

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183          595                 600                 605
186 Gln Leu Leu Ala Lys Arg Glu Val Trp Asp Gln Ser Ala Leu Asp Val
187      610                 615                 620
190 Gly Leu Thr Met Gln Leu Leu Asp Cys Asn Phe Ser Asp Glu Asn Val
191 625                 630                 635                 640
194 Arg Ala Ile Ala Val Gln Lys Leu Glu Ser Leu Glu Asp Asp Asp Val
195                 645                 650                 655
198 Leu His Tyr Leu Leu Gln Leu Val Gln Ala Val Lys Phe Glu Pro Tyr
199                 660                 665                 670
202 His Asp Ser Ala Leu Ala Arg Phe Leu Leu Lys Arg Gly Leu Arg Asn
203          675                 680                 685
206 Lys Arg Ile Gly His Phe Leu Phe Trp Phe Leu Arg Ser Glu Ile Ala
207      690                 695                 700
210 Gln Ser Arg His Tyr Gln Gln Arg Phe Ala Val Ile Leu Glu Ala Tyr
211 705                 710                 715                 720
214 Leu Arg Gly Cys Gly Thr Ala Met Leu His Asp Phe Thr Gln Gln Val
215                 725                 730                 735
218 Gln Val Ile Asp Met Leu Gln Lys Val Thr Ile Asp Ile Lys Ser Leu
219             740                 745                 750
222 Ser Ala Glu Lys Tyr Asp Val Ser Ser Gln Val Ile Ser Gln Leu Lys
223          755                 760                 765
226 Gln Lys Leu Glu Asn Leu Gln Asn Leu Asn Leu Pro Gln Ser Phe Arg
227      770                 775                 780
230 Val Pro Tyr Asp Pro Gly Leu Lys Ala Gly Ala Leu Val Ile Glu Lys
231 785                 790                 795                 800
234 Cys Lys Val Met Ala Ser Lys Lys Lys Pro Leu Trp Leu Glu Phe Lys
235                 805                 810                 815
238 Cys Ala Asp Pro Thr Ala Leu Ser Asn Glu Thr Ile Gly Ile Ile Phe
239             820                 825                 830
242 Lys His Gly Asp Asp Leu Arg Gln Asp Met Leu Ile Leu Gln Ile Leu
243          835                 840                 845
246 Arg Ile Met Glu Ser Ile Trp Glu Thr Glu Ser Leu Asp Leu Cys Leu
247      850                 855                 860
250 Leu Pro Tyr Gly Cys Ile Ser Thr Gly Asp Lys Ile Gly Met Ile Glu
251 865                 870                 875                 880
254 Ile Val Lys Asp Ala Thr Thr Ile Ala Lys Ile Gln Gln Ser Thr Val
255                 885                 890                 895
258 Gly Asn Thr Gly Ala Phe Lys Asp Glu Val Leu Ser His Trp Leu Lys
259             900                 905                 910
262 Glu Lys Cys Pro Ile Glu Glu Lys Phe Gln Ala Ala Val Glu Arg Phe
263          915                 920                 925
266 Val Tyr Ser Cys Ala Gly Tyr Cys Val Ala Thr Phe Val Leu Gly Ile
267      930                 935                 940
270 Gly Asp Arg His Asn Asp Asn Ile Met Ile Ser Glu Thr Gly Asn Leu
271 945                 950                 955                 960
274 Phe His Ile Asp Phe Gly His Ile Leu Gly Asn Tyr Lys Ser Phe Leu
275                 965                 970                 975
278 Gly Ile Asn Lys Glu Arg Val Pro Phe Val Leu Thr Pro Asp Phe Leu
279             980                 985                 990
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```
282 Phe Val Met Gly Thr Ser Gly Lys  Lys Thr Ser Leu His  Phe Gln Lys
283         995                 1000                1005
286 Phe Gln  Asp Val Cys Val Lys  Ala Tyr Leu Ala Leu  Arg His His
287     1010                1015                1020
290 Thr Asn  Leu Leu Ile Ile Leu  Phe Ser Met Met Leu  Met Thr Gly
291     1025                1030                1035
294 Met Pro  Gln Leu Thr Ser Lys  Glu Asp Ile Glu Tyr  Ile Arg Asp
295     1040                1045                1050
298 Ala Leu  Thr Val Gly Lys Ser  Glu Glu Asp Ala Lys  Lys Tyr Phe
299     1055                1060                1065
302 Leu Asp  Gln Ile Glu Val Cys  Arg Asp Lys Gly Trp  Thr Val Gln
303     1070                1075                1080
306 Phe Asn  Trp Phe Leu His Leu  Val Leu Gly Ile Lys  Gln Gly Glu
307     1085                1090                1095
310 Lys His  Ser Ala
311     1100
```

VERIFICATION SUMMARY DATE: 09/26/2002
PATENT APPLICATION: US/09/974,573 TIME: 14:21:23

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L:14 M:271 C: Current Filing Date differs, Replaced Current Filing Date